

L 46765-66

ACC NR: AF6030081

matting the degree of reliability of the results. Plots are presented of the relative fraction of the multiple scattering in the brightness of the twilight sky obtained for different observation directions by various theoretical methods suggested by others and from the authors' experiments. It is indicated that a detailed analysis of the twilight brightness observations yields reliable estimates of the brightness of the secondary scattered light by the atmosphere without making additional hypotheses concerning the optical structure of the atmosphere, provided the volume of photometric information is sufficient. A relation for the secondary brightness intensity is obtained for both the near-zenith region and for the region near the countervertical of the sun. It is also shown that the authors' earlier measurements make it possible to utilize simultaneously the two independent methods proposed by G. V. Rozenberg (Sumerki [Twilight], Fizmatgiz, 1963) (find the instantaneous brightness gradient along the solar meridian and find the rate of change of brightness at a given point in the sky) for the determination of the height variation of the scattering coefficient of the atmosphere from data on the brightness of the twilight sky. It is recommended on the basis of the results that the twilight sounding method is preferred for the height interval from 30 to 110 km, and that both methods should be employed simultaneously. [02]

Orig. art. has: 10 figures and 15 formulas.

SUB CODE: 04, 20/
ATD PRESS: 5090

SUBM DATE: 11Apr66/

ORIG REF: 012/

OTH REF: 004/

Card 2/2 mt

PYLDVERE, E.I.; BRESLER, V.M.

Ultrastructure of the transplantable hepatomas of S₃NA mice.
Report No. 1: Electron microscopic study of the hepatomas 22
and 46. Tsitologiya 7 no.3:372-377 My-Je '65. (MIRA 18:10)

1. Laboratoriya mikroskopi Instituta tsitologii AN SSSR,
Leningrad.

PYL'DVERE, K.I.

Conference and symposium on the morphological pattern of the
nervous system under normal and pathological conditions. Arkh.
anat., gist. i embr. 48 no.2:105-107 F '65.

(MIRA 18:8)

PYL'DVERE, K.I. [Poldvere, K.] (Estonskaya SSR, Tartu, ul. Vyayke-
Kaar, 23, kv. 3)

Growth and transformation of so-called "skin-muscle tissue" in
monolayer trypsinized culture. Arkh. anat., gist. i embr. 45
no. 10:20-28 0 '63. (MIRA 17:9)

1. Tsentral'naya meditsinskaya nauchno-issledovatel'skaya
laboratoriya (zav. - K.I. Pyl'dvere) Tartuskogo gosudarstvennogo
universiteta.

HELIZINA, Ye.N.; CHERNOVA, N.I.; VORONA, I.M.; LYLENKO, M.S.

Role of *Ornithonyssus bacoti* (S. Hirst, 1913) (Parasitiformes, Gamasides) in natural foci of plague; author's abstract. Med. paraz. i paraz. bol. 34 no.3:357-358 Vy-Je '65.

(MIRA 18:7)

1. Postovskiy-na-Donu nauchno-issledovatel'skiy protivochumnyy Institut i Astrachanskaya protivochumnaya stantsiya.

NEL'ZINA, Ye.N.; FYLENKO, M.S.; CHUDOSEVA, V.P.; KONDRASHKINA, K.I.;
BYKOV, L.T.

Materials on the role of *Rhipicephalus schulzei* Ol. (Ixodidae,
Parasitiformes) in natural foci of plague. Part.1: Localization
of the plague microbe in the tick body. Med.paras.i paras.bol.
29 no.2:202-207 '60. (MIRA 13:12)
(PASTEURILLA PESTIS) (TICKS AS CARRIERS OF DISEASE)

ZAKHARCHENKO, D.D., dotsent, kandidat tekhnicheskikh nauk; ISAYEV, I.P., dotsent, kandidat tekhnicheskikh nauk; KALININ, V.K., inzhener; KREST'YANOV, M.Ye., dotsent, kandidat tekhnicheskikh nauk; LAKSHTOVSKIY, I.A., dotsent, kandidat tekhnicheskikh nauk; MARKVARDT, K.G., professor, doktor tekhnicheskikh nauk; MEDEL', V.B., professor, doktor tekhnicheskikh nauk; MIRONOV, K.A., inzhener; MIKHAYLOV, N.M., dotsent, kandidat tekhnicheskikh nauk; MAKHODKIN, M.D., dotsent, kandidat tekhnicheskikh nauk; OZEMBLOVSKIY, Ch.S., inzhener; OSIPOV, S.I., inzhener; ROMASHKOV, S.G., inzhener; SOKOLOV, L.S., inzhener; FAMINSKIY, G.V., kandidat tekhnicheskikh nauk; SHATSILLO, A.A., inzhener; SHLYAKHTO, P.M., dotsent, kandidat tekhnicheskikh nauk; BOVE, Ye.G., kandidat tekhnicheskikh nauk, retsensent; PERTSOVSKIY, L.M., inzhener, retsensent; ALEKSEYEV, A.Ye., professor, doktor tekhnicheskikh nauk, retsensent; BATALOV, N.M., inzhener, retsensent; VINBERG, B.N., inzhener, retsensent; GRACHEVA, L.O., kandidat tekhnicheskikh nauk, retsensent; YEVDOKIMOV, A.M., inzhener, retsensent; KALININ, S.S., inzhener, retsensent; TRAKHMAN, L.M., kandidat tekhnicheskikh nauk, retsensent; PYLENKOV, A.P., inzhener, retsensent; GOMESHTIN, B.Ye., kandidat tekhnicheskikh nauk, retsensent; IL'IN, I.P., inzhener, retsensent; MAKHODKIN, M.D., dotsent, kandidat tekhnicheskikh nauk, retsensent; TISHCHENKO, A.I., otvetstvennyy redaktor; KUMESHEVICH, I.I., kandidat tekhnicheskikh nauk, redaktor; ZOROKHOVICH, A.Ye., dotsent, kandidat tekhnicheskikh nauk, redaktor; LUTSENKO, Ye.G., inzhener, redaktor; BOGOZHIN, A.P., inzhener, redaktor; SIDOROV, N.I., inzhener, redaktor; VERINA, G.P., tekhnicheskiiy redaktor
(Continued on next card)

ZAKHARCHENKO, D.D.---(continued) Card 2.

[Technical manual for railroad workers] Tekhnicheskii
spravochnik zheleznodorozhnika. Red. kollegiia R.G. Granovskii
i dr. Moskva, Gos. transp. shel-dor. izd-vo. Vol. 9.[Electric
railroad rolling stock] Elektropodvizhnoi sostav zheleznykh
dorog. Otv. red. tomm A.I. Tishchenko. 1957. 652 p. (MLRA 10:4)

1. Chlen-korrespondent Akademii nauk SSSR. (for Alekseyev)
(Electric railroads--Rolling stock)

BORISENKO, Ye.M.; PYLENKOV, B.N.; YUDIN, G.T.

Importance of the correlation of structural plans for
prospecting methods used in the Kuma oil-bearing area.
Neftegaz. geol. i geofiz. no.3:7-10 '65. (MIRA 18:7)

1. Stavropol'skiy filial Groznenskogo neftyanogo nauchno-is-
sledovatel'skogo instituta i Moskovskiy ordena Trudovogo Krasnogo
Znameni institut neftekhimicheskoy i gazovoy promyshlennosti im.
akad. Gubkina.

L 13599-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(1)

ACC NR: AP6001015

SOURCE CODE: UR/0286/65/000/022/0096/0096

AUTHORS: Pylev, B. B.; Markov, S. A.; Petrukhin, A. N.

ORG: none

TITLE: Detector of linear motion of parts. Class 83, No. 176524

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 22, 1965, 96

TOPIC TAGS: aircraft fuel system equipment, hydraulic equipment

ABSTRACT: This Author Certificate presents a detector of linear motion of the equipment parts, and principally of the translational motion time in the slide rod of hydraulic systems in automatic aviation fuel equipment. The measured part has a hole intersecting a light beam incident on a photometric detector. To increase the accuracy of measurement and to insure a given constant force of motion of the slide rod for the whole measured section of travel, the hydraulic drive has a rigidly coupled screen and rod, which have different reference cross-sectional areas (see Fig. 1). The photometric detector with two photodiodes has a slotted shield for limiting the light beam and adjusting the detector to the initial point of command

Card 1/2

UDC: 621.318.563.5

L 13599-66

ACC NR: AP6001C15

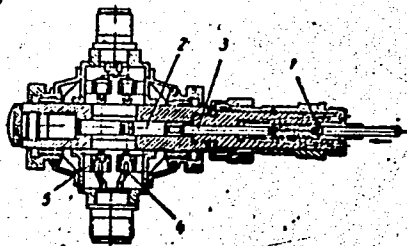


Fig. 1. 1 - Hydraulic drive unit; 2 - screen; 3 - rod; 4 and 5 - photometric detectors.

output to the slave mechanism. Orig. art. has: 1 diagram.

SUB CODE: 01/

SUBM DATE: 16Jun64

Cord 2/2

GRYANKO, L.P.; PYLEV, I.M.

Selection of the first approximation for flow parameters in
interwheel gaps of the hydraulic torque converter with axial
turbine. Trudy LPI no.246:77-85 '65. (MIRA 18:6)

SHABAD, I.M.; YILIN, I.I.; ROSENBERG, I.S.

Role of the deposition of a carcinogenic substance in the pathogenesis of pulmonary cancer; experimental studies. Vop. onk. 19 no.6:65-72 '64. (MIRA 18:3)

1. Iz laboratorii profilaktiki kantserogennykh vozdeystviy, otdela po izucheniyu kantserogennykh agentov (zav. - deystvitel'nyy chlen AMN SSSR prof. I.M.Shabad) Instituta eksperimental'noy i klinicheskoy onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. N.N.Bickhin). Adres avtorov: Moskva, 1-110, ul. Shchepkina 61/2, korpus 9, Institut eksperimental'noy i klinicheskoy onkologii AMN SSSR.

PYIEV, L.N.

Experimental lung cancer in rats induced by 3,4-benzopyrene.
Vest. AMN SSSR 19 no.11:41-45 '64. (MIRA 18:3)

1. Institut eksperimental'noy i klinicheskoy onkologii AMN
SSSR, Moskva.

PYLEV, L.N.

Morphology of precancer changes and of lung cancer induced in rats by intratracheal administration of 9,10-dimethyl-1,2-benzanthracene. Vop onk. 8 no. 10:35-42 '62. (MIRA 17:7)

1. Iz otdela po izucheniyu kantserogennykh agentov (zav.-chlen korrespondent AMN SSSR, prof. L.M.Shabad) Instituta eksperimental'noy i klinicheskoy onkologii AMN SSSR (direktor - daystvitel'nyy chlen AMN SSSR, prof. N.N.Blokhin). Adres avtora: Moskva, I-110, 3-ya Meshchanskaya, d. 61/2, korp. 9, Institut eksperimental'noy i klinicheskoy onkologii AMN SSSR.

PYLEV, L.N.

Late tumors in rats following the administration of
9,10-dimethyl-1,2-benzanthracene into the lungs. Vop onk. 10
no.8:53-60 '64. (MIRA 18:3)

1. Iz laboratorii profilaktiki kantserogennykh vozdeystviy otdela
po izucheniyu kantserogennykh agentov (sav. - deystvitel'nyy chlen
AMN SSSR prof. L.M.Shabad) Instituta eksperimental'noy i klinicheskoy
onkologii AMN SSSR (dly - deystvitel'nyy chlen AMN SSSR prof. N.N.
Blokhin). Adres avtora Moskva, I-110, ul. Shchepkina, 61/2, korp.
9, Institut eksperimental'noy i klinicheskoy onkologii AMN SSSR.

PYLEV, L.N.

Experimental production of lung cancer in rats by the intratracheal administration of 9,10-dimethyl-1,2-benzathracene. Biul. eksp. biol. i med. 52 no.11:99-102 N '61. (MIRA 15:3)

1. Iz laboratorii po izucheniyu kantserogennykh veshchestv (zav. - chlen-korrespondent AMN SSSR prof. L.M. Shabad) Instituta eksperimental'noy i klinicheskoy onkologii (dir. - deystvitel'nyy chlen AMN SSSR prof. N.N. Blokhin) AMN SSSR, Moskva. Predstavlena deystvitel'nyy chlenom AMN SSSR A.D. Timofeyevskim.

~~(LUNGS--CANCER)~~
~~(BENZATHRACENE--TOXICOLOGY)~~

PYLENKOV, G.F.

Mechanization and automation of drying chambers. Mashinostroitel'
no.5:18-19 My '63. (MIRA 16:7)

(Drying apparatus)

PyLEV, V. V.

USER/Miscellaneous - Communication-work planning

Card 1/1 Pub. 133 - 9/23

Authors : Pylev, V. V., Head of the District Communications Office of the city of Romny, Sumy Region; and Bol'shakova, E. M., Senior Economist

Title : The deficiencies in planning and evaluating economic factors of managing local communications offices must be eliminated

Periodical : Vest. svyazi 8, 14-15, Aug 1954

Abstract : The author describes the difficulties encountered by the Romny District Communications Office when, according to instructions received from the Central Regional Office, its work was reorganized on a self-paying basis instead of being operated on government subsidies. The defects connected with new planning are analyzed and methods for their elimination proposed.

Institution : ...

Submitted : ...

YERMAKOV, L.K.; TYABIN, V.Ye.; MIKHAYLOV, A.K. [deceased]; KOMISSAROV, B.M.;
PYLEVA, M.N.; SVIRIDOV, A.Ye.; NIKITINA, V.N., redaktor izdatel'stva;
KRYNOCHKINA, K.V., tekhnicheskiy redaktor

[Production norms for geodetic and topographical work in geological prospecting and geophysical organizations. Supplement to the unified production norms for geodetic and topographical work in the Chief Administration of Geodesy and Cartography of the Ministry of Interior of the U.S.S.R.] Normy vyrabotki na geodezicheskie i topograficheskie raboty geologo-razvedochnykh i geofizicheskikh organizatsii. Dopolnenie k edinyim normam vyrabotki na geodezicheskie i topograficheskie raboty GUGK MVD SSSR 1954 g. Moskva, Gos. nauchno-tekhn. izd-vo litery po geol. i okhrane nedr, 1956. 51 p. (MLRA 10:1)

1. Russia (1923- U.S.S.R.) Ministerstvo geologii i okhrany nedr.
2. Ministerstvo geologii i okhrany nedr SSSR (for Yermakov) 3.
- Ministerstvo neftyanoy promyshlennosti SSSR (for Pyleva) 4. Minister-
- stvo ugol'noy promyshlennosti SSSR (for Sviridov)
- (Geodesy) (Cartography)

PYLILLO V. K.

SAKODUROV, P.S.; PYLILLO, V.K.

Mineralogy of Russian and Wirnian moraine loams in White Russia.
Uch. zap. IAK. un. no.1:136-166 '57. (MIRA 11:3)
(White Russia--Clay)

BONDARI, I.S.; OKUNEV, P.A.; ROPICHOV, P.P.; FYLINA, M.V.

Re-esterification of malonic acid esters. Izv. AN SSSR. Ser. khim.
no.19:1892-1894 '65. (MIRA 18:10)

1. Institut organicheskoy khimii im. M.D.Zelinskogo AN SSSR.

PYLKOV, P.V.; PIRSOVA, Ye.A., redaktor; FOKINA, A.P., tekhnicheskiy redaktor.

[How to build your own motor boat] Kak samomu postroit' motornuiu lodku. Moskva, Izd-vo Glavsevmorputi, 1951. 53 p. [Microfilm]
(MIRA 10:6)

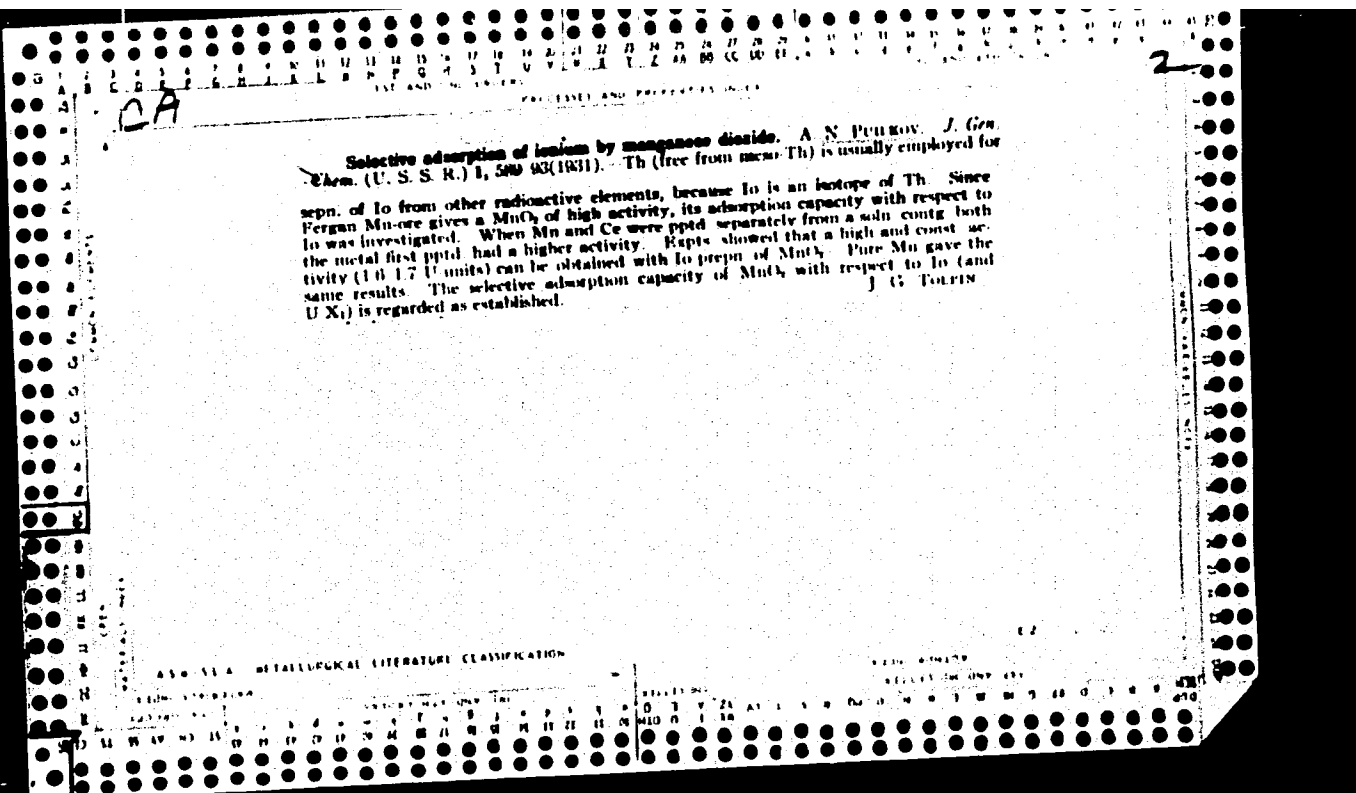
(Motorboats)

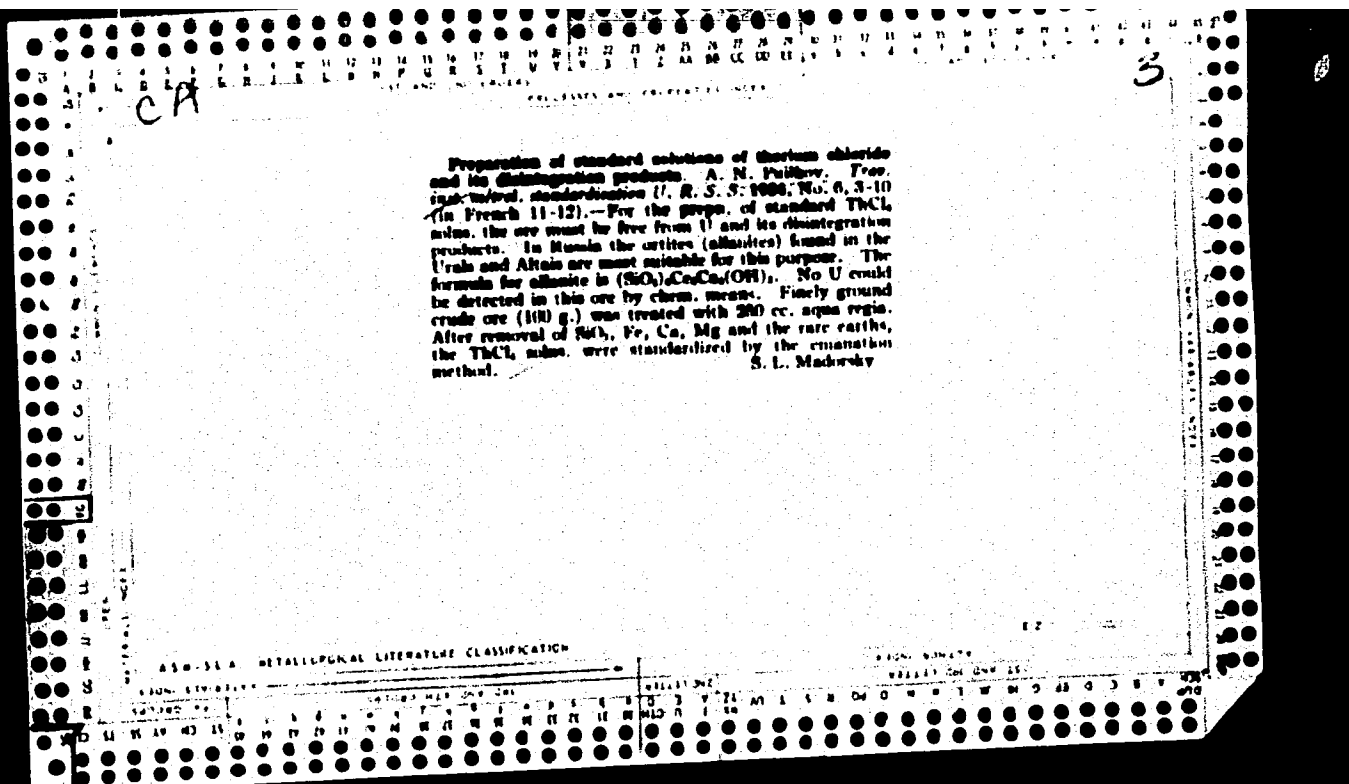
Chen Supercooling two-component saturated solutions. E. T. Akhmedov and E. V. Pyrkova (V. I. Ul'yanov-Lenin Electro-
tech. Inst., Leningrad). *Doklady Akad. Nauk S.S.S.R.*
108, 857-860 (1956).—The max. supercooling is discussed in
the NaCl-H₂O, KCl-H₂O, and KNO₃-H₂O systems, obtained
after a previous superheating. The method used was de-
scribed by A. and co-workers (*C.A.* 27, 219; 31, 2524¹).
The heating and cooling conditions were carefully controlled.
The results of av. values of max. supercooling in the 3 two-
component systems are presented in a table, and confirm
the theoretical relation derived by A. and Rozen (*C.A.* 48,
9790s). W. M. Sternberg

2

Method for the preparation of the standard uranium oxide and the determination of its maturation current. A. N. TILLOV. *J. Gen. Chem. (U. S. S. R.)* 1, 133-42 (1931). About 300 g. of U₃O₈ was dissolved in dil. HCl. Only 10% of silica was left undissolved, contg. Pa and Act. At the same time Ra, MaTh, RaTh and partially R'X and Io were sep'd. by H₂Cl₂. H₂SO₄ was pptd. with very dil. H₂SO₄. Thereupon the ppt. was carefully filtered, the filtrate was treated with Bi(NO₃)₃ and Pb(NO₃)₂ and sat'd. with H₂S, and CuS, Bi₂S₃ and PbS with adsorbed Ra D, Ra F and Ra G were filtered off. The heavy metals such as Fe, Mn, U and V, reduced by H₂S, were oxidized again with Br, pptd. with NH₄OH free from CO₂ and filtered. The ppt., well washed with distd. water, was treated either (1) with a soln. of (NH₄)₂CO₃ or (2) with HNO₃, the soln. was evap'd. to dryness and uranyl nitrate was extd. by ether. To be certain that the salt is radiologically pure it was purified according to the method of Widdowson and Russel (*C. A.* 10, 351). It was very difficult to get the green U₃O₈ from which U X₁ was sep'd. not more than 24 hrs. later. The substance was placed in an electro-scope and its current was measured for 3 months. The increase of U X₁ followed closely the theoretical curve. The satn. current of green U₃O₈ on the surface of 1 cc. was det'd. afterward.

V. D. KARPENKO





CA

PROCESS AND PROPERTIES INDEX

Advancing power of manganese for ionium. A. N. Pullov. *Proc. inst. metall. standardisation U. R. S. S. 1950, No. 6, 13-19* (in French 20).—Io is superior to U in the prepn. of radiological standard solns. because it radiates only α -particles and hence comes to equil. immediately. Io standards can be prepd. only by adsorption on other substances. Both MnO_2 and $Ce(C_2O_4)_3$ are suitable as adsorbents for Io, but the first is better. In order to cause the Io to go with the MnO_2 instead of with $Ce(C_2O_4)_3$, MnO_2 is pptd. from the soln. first by treating with H_2SO_4 (d. = 1.84) and then with $(NH_4)_2S_2O_8$. The MnO_2 carries down with it the Io and its isotope U X₁. S. L. M.

ASAC-SLA METALLURGICAL LITERATURE CLASSIFICATION

3

PyLKOV, A. N.
CA

Abstracting green oxide of uranium to a metal disk. A. N. PyLKov. *Trudy Vsesoyuz. Nauch.-Issledovatel. Inst. Metal. No. 20, 20-5(1939).*— Powder of U_3O_8 was affixed to a metal disk by means of a Glyptal film followed by heating of the disk for 8 hrs. at 180° in an open electric oven. The powder adhered to the disk with sufficient force to enable its use for measuring the radioactivity of ore in the disk. B. Z. Kamich

ASH-51A METALLURGICAL LITERATURE CLASSIFICATION

REGION 604170
654127 ONE ONE 151

PYLILO, I.V.

Observations on the regeneration in *Beroe cucumis* Fabr. Vest.
LGU 20 no.3:150-153 '65. (MIRA 18:2)

PYLIN, VASILII ALEKSEYEVICH

BUBLIY, Vasilii Fedorovich; PYLIN, Vasilii Alekseyevich; KOMAROV, A.F.,
kand.tekhn.nauk, retsenzent; IVANOV, L.I., inzh., retsenzent;
RODZEVICH, V.I., kand.biol.nauk, spetsredaktor; KRUGLOVA, G.I., red.;
KISINA, Ye.I., tekhn.red.

[Storage and processing of grain in the manufacture of alcohol]
Khranenie i podrabotka zerna v spirtovom proizvodstve. Moskva,
Pishchepromizdat, 1957. 130 p. (MIRA 10:12)
(Grain handling)

PYLINA, A.K.

Pyrite-marcasite concretions from the Lower Carboniferous coal seams in the surrounding area of Borovichi). Uch. zap. Ped. inst. Gerts. 267.205-233 '64.

Genetic classification of pyrite-marcasite concretions from the Lower Carboniferous coal seams in the surrounding area of Borovichi. Ibid.:235-250 (MIRA 18:9)

Pyl'tsov, I.M.
KOPYKO, I.P.; PYL'TSOV, I.M. (Yalta)

Peripleural novocaine block in combined treatment of pulmonary tuberculosis. Klin.med. 35 no.12:71-78 D '57. (MIRA 11:2)

1. Iz Yaltiyskogo sanatoriya imeni Rozy Lyuksemburg (glavnyy vrach V.Ye. Yershov)

(TUBERCULOSIS, PULMONARY, ther.

peripleural procaine block (Rus))

(PROCAINE, ther. use

pulm. tuberc., peripleural block (Rus))

(ANESTHESIA, REGIONAL, in var. dis.

peripleural procaine block in pulm. tuberc. (Rus))

SYNEYEV, NIKOLAY KONSTANTINOVICH

~~SYNEYEV, Nikolay Konstantinovich; MOSUKHIN, I.V., polkovnik, redaktor;~~
~~VOLKOVA, V.I., tekhnicheskij redaktor.~~

[An airplane crew's activities when forced down in an uninhabited place] Deistviia ekipazha samoleta, vynushdenno popavshogo v besliudnuiu mestnost'. Moskva, Voen.isd-vo M-va obor.SSSR, 1957.
194 p. (MIRA 10:11)

(Survival (after airplane accidents, shipwrecks, etc.))

PYLKOV, Ye.V.

Metastable equilibria in the system $KCl - K_2SO_4 - H_2O$. Zhur.
neorg. khim. 10 no.7:1716-1722 J1 '65. (MIRA 18:8)

AKHUMOV, Ye.I.; PYLKOVA, Ye.V.

Kinetics of crystallization of two-component supersaturated solutions. Izv.vys.ucheb.zav.;khim.i khim.tekh. 5 no.2: 253-258 '62. (MIRA 15:8)

1. Leningradskiy elektrotekhnicheskiy institut imeni Ul'yanova-Lenina, kafedra khimii.
(Salts) (Crystallization)

24(8)

PHASE I BOOK EXPLORATION

SOV/2809

PyLKouA, Ye.V.

Madamska nauk SSSR. Otdeleniye khimicheskikh nauk
 Termodinamika i stroeniye rastvorov; truly sovetskaniya...
 (Thermodynamics and Structure of Solutions; Transactions of the
 Conference Held January 27-30, 1958) Moscow, Izd-vo AN SSSR,
 1958. 295 p. 3,000 copies printed.

Ed.: M. I. Shuburov, Doctor of Chemical Sciences; Ed. of Publishing
 House: M. G. Vagrov, Tech. Ed.: T. V. Polyakova.

PURPOSE: This book is intended for physicists, chemists, and
 chemical engineers.

COMMENT: This collection of papers was originally presented at the
 Conference on Thermodynamics and Structure of Solutions, sponsored
 by the Section of Chemical Sciences of the Academy of Sciences,
 USSR, and the Section of Chemistry of Moscow State University,
 and held in Moscow on January 27-30, 1958. Out of other reports
 and held in the USSR, but not included in this book,
 also read at the conference, among the problems treated in this work are:
 electrolytic solutions, ultrasonic measurements, dielectric
 and thermodynamic properties of various mixtures, spectro-
 scopic analysis, etc. References accompany individual articles.

THEORY OF SOLUTIONS OF NONELECTROLYTES 36

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 Solubility 46

Prigogine, I. R. and E. Ye. Rabinovich. Critical Phenomena
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 Components and of Their Mixtures With the Aid of Ultrasonic
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Radetsky, V. P. Use of Ultrasonic Measurements in the
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 Many Heterostructures into Homoeotropes and Homoeotropes 79

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Imanulov, M. A., V. A. Kravtsov, L. M. Kutayeva, and Ye. V. Titov.
 Study of the Effect of Solvents on the Strength of Acids by
 Means of Optical Methods 122

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 and Methods of Studying It 126

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X Antipova-Korotkiy, I. Y. Study of the Effect of the Surrounding Medium on the State of the Charge Ion by Means of Absorption Spectra of Solutions and Alkali Crystals	270
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AKHUMOV, Ye.I.; FYLKOVA, Ye.V.

Metastable equilibria in the three-component system $\text{NaCl} - \text{KCl} - \text{H}_2\text{O}$. Zhur. neorg. khim. 5 no.8:1819-1826 Ag '60. (MIRA 13:9)
(Salt) (Potassium chloride) (Phase rule and equilibrium)

AUTHORS: Akhumov, Ye. I., Pylkova, Ye. V. SOV/78-3-9-28/38

TITLE: Solubility and Supersaturation in the System Sodium Sulfate-Water at High Temperatures (Rastvorimost' i peresyshcheniye v sisteme sul'fat natriya-voda pri vysokikh temperaturakh)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol 3, Nr 9, pp 2178-2183 (USSR)

ABSTRACT: The solubility and supersaturation in the system of sodium sulfate - water was examined at a temperature of 233°C. The analyses were carried out by polythermal methods. The crystallization in the system $\text{Na}_2\text{SO}_4\text{-H}_2\text{O}$ depends on the composition of the initial solutions when temperature varies. The results of experiments with saturated and supersaturated solutions of aqueous sodium sulfate at higher temperatures make it possible to draw the phase diagram of this system. It can be seen from the phase diagram that there are three meta-stable branches at temperatures of more than 233°C. The interdependence between the negative absolute temperatures of crystallization of the saturated solution T_1 and the supersaturated temperature of crystallization T_2 was represented graphically. Various rhombic

Card 1/2

SOV/78-3-9-28/38

Solubility and Supersaturation in the System Sodium Sulfate - Water at High Temperatures

modifications of sodium sulfate appear in the system.
There are 5 figures, 3 tables, and 9 references, 6 of which are Soviet.

SUBMITTED: July 8, 1957

Card 2/2

DEYNAGA, F.D.; VUL'FSON, M.G.; PYL'NEN'KIY, A.A.. redaktor; VUYEK, M.P.,
tekhnicheskiiy redaktor.

[Brewing beer according to new techniques] Proizvodstvo piva po
novoi tekhnologicheskoi skheme. Kiev, Gos.izd-vo tekhn. lit-ry
USSR, 1954. 61 p. (Microfilm) (MLRA 9:5)
(Beer)

PYL'NEV, G., tekhnik-planovik

Manufacturing slag blocks in winter. Prom.koop. 14 no.9:12-13
S '60. (MIRA 13:9)

1. Artel' "Krasnoye zarevo", g. Novokhopersk, Voronezhskoy oblasti.
(Cinder blocks)

USSR / Cultivated Plants. Grains.

M-2

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24961

Author : Orlov, V., Pyl'nev, V.

Inst : Not given

Title : Soft Summer Wheat Variety Crosses as the Initial
Material in Selection

Orig Pub: Sb. stud. nauchn.-issled. rabot Mosk. s.-kh. akad.
im. K. A. Timiryazeva, 1956, vyp. 6, 3-9

Abstract: The cross between the Blokadnaya (erythrospermum) and the Diamant varieties which differ in quantitative characteristics and are similar in development is most promising, especially in productivity and the quality of the grain. Those forms obtained through crossing which belong to the ferrugineum and lutescens varieties are less productive than the developed forms of the parental varieties. In

Card 1/2

USSR / Cultivated Plants. Grains.

M-3

Abs Jour: Ref Zhur-Biol., 1958, No 16, 72890.

Author : Pyl'nev, V.; Filatova, L.

Inst : Moscow Agricultural Academy imeni K. A. Timiryazev.

Title : Diverse Quality of Spring Wheat Seeds Depending on
Their Position in the Spike.

Orig Pub: Sb. stud. nauchno-issled. rabot. Mosk. s.-kh. akad.
im. K. A. Timiryazeva, 1958, vyp. 8, 32-39.

Abstract: No abstract.

Card 1/1

TYL'NEV, M., kand.ped.nauk

N.K.Krupskaya on training for work. Rabotnitsa 37 no.2:28-29 P '59.
(MIRA 12:3)

(Krupskaya, Nadezhda Konstantinovna, 1869-1939)

PYL'NEV, V.

"How I became a naturalist" by V.Shnitnikov. Reviewed by V.Pyl'nev.
IUn. nat. no.9:27-28 S '58. (MIRA 11:10)
(Natural history--Outdoor books)
(Shnitnikov, V.)

PYL'NEV, V.

"History of an ear of corn" by D.Grishin. Reviewed by V.Pyl'nev.
IUn. nat. no.9:28 S '58. (MIRA 11:10)
(Corn (Maize))

FYL'NEV, V.M. [Fyl'niev, V.M.]

Metabolism in growing pollen tubes. Ukr. bot. zhur. 22 no.3:
3-10 '65. (MIRA 18:7)

1. Nauchno-issledovatel'skiy institut zemledeliya i zhivotnovodstva
zapadnykh rayonov UkrSSR, L'vovskaya oblast'.

PYL'NEV, V.M.

Vacuum-infiltration micromethod for determining the
dehydrase activity in living cells. Biokhimiia 29
no.5:837-840 J1-Ag '65. (MIRA 18:11) X

1. Sel'skokhozyaystvennaya akademiya imeni Timiryazeva,
Moskva.

FILENEV, V.M., kand. biolog. nauk

Physiological bases of pollination selectivity in spring wheat.
Izv. TSKHA no.4:25-37 1964. (MIRA 17:11)

1. Kafedra genetiki, selektsii i semenovodstva polevykh kultur
Sovetskikhkhozaystvennoy akademii imeni Timiryazeva.

IVANOV, K.K.; KOVALENKOVA, V.K.; DAVYDOVA, T.A.; BORISOVA, V.N. Prinimali
uchastiye; SOKOLOVA, L.B.; PROKHOROVA, T.G.; SHATILOVA, Z.K.;
PYL'NEVA, L.I.; SEMENOVA, V.S.

Obtaining colimycin on an enriched medium. Med.prom. 14 no.11:13-16
N '60. (MIRA 13:11)

1. Institut po izyskaniu novykh antibiotikov AMN SSSR.
(NEOMYCIN)

IGONON, P.G., inzh.; SVITKIN, V.V., inzh.; MITROFANOV, M.G., kand.tekhn.nauk;
SLEPTSOV, Yu.S., inzh.; KOLOZHVAR, A.A., inzh.; PASHENKO, M.A., inzh.;
ZHIVOLUPOV, M.A., inzh.; Prinimali uchastiye: MUSHENKO, D.V.;
TSYSKOVSKIY, V.K.; SHCHEGLOVA, TS.N.; FREYDIN, B.G.; PYL'NIKOV, V.I.;
LEVINA, M.I.; LEVIN, A.I.; LUR'YE, Ye.I.; BAYKINA, T.A.; UDOVENKO, S.A.;
MARCHENKO, T.A.

Effect of the method of liquid paraffin oxidizing on the yield and
quality of the obtained fatty acids. Masl.-zhir.prom. 28 no.11:20-23
N '62. (MIRA 15:12)

1. Groznenskiy nauchno-issledovatel'skiy neftyanoy institut (for
Igonin, Svitkin, Mitrofanov, Sleptsov, Kolozhvari, Pashenko, Zhivolupov).
2. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh
protseessov (for Mushenko, TSyskovskiy, Shcheglova, Freydin, Pyl'nikov,
Levina, Levin).3. Lengiprogaz (for Lur'ye, Baykina). 4. VNIISINZh
(for Udovenko, Marchenko).

(Paraffins)

(Acids, Fatty)

SHARONOV, G.Ye.; PEGUSHIN, A.V.; PYL'NIKOVA, L.V.

Catalytic conversion of shale gas with water vapor. Trudy
VNIIT no.12:174-180 '63. (MIRA 18:11)

PYL'NOV, A.I., konstruktor (Kaluga)

New spike puller. Put' 1 put.khoz. no.1:37 Ja '59.
(MIRA 12:2)

1. Kaluzhskiy zavod transportnogo mashinostroyeniya.
(Railroads--Tools and implements)

PYL'NOV, I.V.

Silkworm culture in Kuybyshev Province. Uch. zap. Kuib. gos.
ped. inst. no.35:107-151 '61. (MIRA 15:9)
(Kuybyshev Province--Silkworms)

PYL'NOV, I.V.

Effect of gibberellin on growth of the mulberry (Morus alba L.).
Izv. AN SSSR. Ser. biol. 26 no.1:46-50 Ja-F '61. (MIRA 14:3)

1. Pedagogical Institute, Kuybyshev.
(GIBBERELLINS) (MULBERRY)

A new vegetable insecticide. 1. V. Dzhurkova, *Sov. Subtropiki* 1938, No. 1, 84-7; *Chemie & Industrie* 40, 1938, No. 1, 84-7. The insecticide in question consists of an infusion of bulbs of *Cochlosoma elegans* Boiss. The toxic principle seems to be the saponin Calladon. It can be prepared from either the fresh or the dry bulbs. It is very effective against fruit-tree parasites such as the various *Phylloxera* and *Psyllids*. A. Pannicau-Courme

PYLOV, A.P., agronom, aspirant

Deep plowing or stubble plowing? Zemledelie 26 no.8:22-24 Ag '64.
(MIRA 17:11)

1. Moskovskaya ordena Lenina sel'skokhozyaystvennaya akademiya
imen Timiryazeva.

PYLOV, B.A., kand.tekhn.nauk; POLEZHAYEV, A.A., kand.tekhn.nauk;
GAVRIKOV, Yu.A.; STREL'TSOV, V.I.

Effect of hydrokinetic transmissions on torsional vibrations.
Avt.prom. 28 no.2:13-15 F '62. (MIRA 15:2)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni Baumana.
(Motor vehicles--Transmission devices--Vibrations)

PYLOV, B.A., kand.tekhn.nauk; POLEZHAYEV, A.A., kand.tekhn.nauk;
GAVRIKOV, Yu.A.; STREL'TSOV, V.I.

Investigating the resistance to torsional vibrations of
hydrodynamic transmissions. Avt.prom. 27 no.10:21-23 O '61.
(MIRA 14:10)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni
Baumana.

(Automobiles--Transmission devices--Vibration)

SAVIN, A.G.; PYLTSOV, I.M.

Device for a large-photograph fluorograph used in the examination of the skull, accessory nasal sinuses, and the spine. Vest. rent. 1 rad. 40 no.2:57-58 Mr-Ap '65. (MIRA 18:6)

1. Poliklinika No.2 Baumanskogo rayona Moskvy.

USSR/General Problems of Pathology. Neoplasms.

U

Abs Jour: Ref Zhur-Biol., No 8, 1958, 37293.

Author : Firsava, P.P., Pyiltsov, I.M.

Inst :

Title : The Clinic of Lung Plasmocytoma.

Orig Pub: Klinich. meditsina, 1957, 35, No 7, 98-102.

Abstract: The authors describe three personal observations of extra medullary lung plasmocytomas and analyzed 8 cases in the world of literature. The tumor was more frequently situated in the upper lobes of the lung, in the form of an isolated structure inclosed in a thin capsule. On section, the tumor appeared white-yellowish or gray-yellowish in color, was fragile, and consisted of mature plasma cells of 10-12 microns in diameter.

Card : 1/2

PYL'TSOV, I.M.; GRISHKEVICH, A.M.

Significance of a tomographic method of study in the diagnosis
of constrictive pericarditis. Sev.med. 26 no.10:33-36 0 '62.
(MIRA 15:12)

1. Iz rentgenologicheskogo otdeleniya (zav. - prof. P.N.
Mazayev) Instituta khirurgii imeni A.V.Vishnevskogo (dir. -
deystvitel'nyy chlen AMN SSSR prof. A.A.Vishnevskiy) AMN SSSR.
(PERICARDITIS) (CHEST--RADIOGRAPHY)

VISHNEVSKIY, A.A., prof.; GALANKIN, N.K., doktor med. nauk; ARAPOV, A.D.; AKHMETOV, A.M.; VINITSKAYA, R.S., kand. biol. nauk; VOLYNSKIY, Yu.D.; DARBINYAN, T.M., kand. med. nauk; DONETSKIY, D.A., kand. med. nauk; KLEMEVA, Ye.S.; KUDRYAVTSEVA, A.M., kand. med. nauk; KRYMSKIY, L.D., kand. med. nauk; LOKSHINA, K.A.; MAZAYEV, P.N., prof.; PANOVA, Yu.M.; PROMTOVA, T.N., kand. biol. nauk; PYL'TSOV, I.M.; SERGEYEVA, K.A., kand. med. nauk; KHARNAS, S.Sh., kand. med. nauk; KHRUSHCHEVA, kand. med. nauk; TSUKERMAN, B.M., kand. biol. nauk; SHIK, L.L., prof.; GOL'DGAMMER, K.K., red.; BALDINA, N.F., tekhn. red.

[Congenital defects of the heart and large vessels] Vrozhdennye poroki serdtsa i krupnykh sosudov; rukovodstvo dlia vrachei. Moskva, Medgiz, 1962. 577 p. (MIRA 16:1)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Vishnevskiy).

(CARDIOVASCULAR SYSTEM--DISEASES)

SMOL'YANINOVA, N.S., PYL'TSOV, I.M., KLEMENOVA, Ye.S.

Congenital diaphragmatic hernia of the anterior mediastinum simulating epileptoid seizures. Vest.khir. 80 no.4:114-115 Ap'58 (MIRA 11:5)

1. Iz 2-go khirurgicheskogo otdeleniya (zav. - prof. G.V. Alipov) i rentgenovskogo otdeleniya (zav. - prof. P.N. Mazayev) Instituta khirurgii im. A.V. Vishnevskogo AMN SSSR. Adres avtorov: Moskva, B. Serpukhovskaya, d.27, Institut khirurgii im. A.V. Vishnevskogo AMN SSSR.

(HERNIA, DIAPHRAGMATIC, inf.& child
congen., simulating epilepsy (Rus))
(EPILEPSY, differ, diag.
congen. diaphragmatic hernia (Rus))

PYL'TSOV, I.M.

YEGOROVA, Ye.K.; PECHATNIKOVA, Ye.A.; PYL'TSOV, I.M.

Motor and evacuatory functions of the small intestine following
transpleural surgery for cardial cancer [with summary in English]
Eksp. khir. 3 no.2:23-26 Mr-Apr '58. (MIRA 11:4)

1. Iz Instituta khirurgii imeni A.V.Vishnevskogo (dir.-deystvitel'nyy
chlen AMN SSSR prof. A.A.Vishnevskiy) AMN SSSR.

(INTESTINE, SMALL, physiol.

motor & evacuant funct. eff. of gastrectomy for cardial
cancer (Rus)

(STOMACH NEOPLASMS, surg.

eff. of surg. for cardial cancer on small intestinal
motor & evacuant funct. (Rus)

(GASTRECTOMY, in var. dis.

cardial cancer, eff. on small intestinal motor &
evacuant funct. (Rus)

PYL'TSOV I.M.
FIRSOVA, P.P.; PYL'TSOV, I.M.

Clinical aspects of plasmocytomas of the lung. Klin.med. 35 no.7:
98-102 J1 '57. (MIRA 10:11)

1. Iz khirurgicheskogo otdeleniya (zav. - prof. G.V.Alipov) i
rentgenologicheskogo otdeleniya (zav. - prof. P.N.Mazayev) Instituta
khirurgii imeni A.V.Vishnevskogo AMN SSSR (dir. - chlen-korrespondent
AMN SSR prof. A.A.Vishnevskiy).

(MYELOMA, PLASMA CELL, case reports,

lungs (Rus))

(LUNG NEOPLASMS, case reports,

myeloma, plasma cell (Rus))

SHISHKIN, V.P.; PYL'TSOV, I.M.

Disintegrating stomach cancer with gastrophrenopericardial fistula.
Vop.onk. 2 no.5:603-604 '56. (MIRA 10:2)

1. Iz 1-go khirurgicheskogo otdel. (zav. - prof. N.I.Krakovskiy)
i rentgenologicheskogo otdeleniya (zav. - prof. P.N.Masayev) Instituta
khirurgii im. A.V.Vishnevskogo AMN SSSR (dir. - chlen-korrespondent
AMN SSSR prof. A.A.Vishnevskiy). Moskva, bol'shaya Serpukhovskaya ul.
d.27, korpus 5, Institut khirurgii im. A.V.Vishnevskogo AMN SSSR.

(STOMACH NEOPLASMS, compl.

adenocarcinoma with gastrophrenopericardial fistula
(Rus))

(STOMACH, fistula,

gastrophrenopericardial in adenocarcinoma of stomach (Rus))

(DIAPHRAGM, fistula,

same)

(PERICARDIUM, fistula,

same)

PYL' TSOV, I. M.
SHISHKIN, V.P., kandidat meditsinskikh nauk; PYL'TSOV, I.M. (Moskva)

Diagnosis of thrombosis and compression of the portal and splenic veins by splenoportography. Klin.med. 34 no.11:55-62 N '56.

(MIRA 10:2)

1. Iz pervogo khirurgicheskogo otdeleniya (zav. - prof. N.I. Krakovskiy) i rentgenologicheskogo otdeleniya (zav. - prof. P.N. Masayev) Instituta khirurgii imeni A.V.Vishnevskogo AMN SSSR (dir. - chlen-korrespondent AMN SSSR prof. A.A.Vishnevskiy)

(VEINS, PORTAL SYSTEM, radiography

in diag. of thrombosis & compression of portal & splenic veins)

KRAKOVSKIY, N.I., prof.; MAZAYEV, P.N., prof.; SHISHKIN, V.P., kand.med.nauk;
PYL'TSOV, I.M.

Significance of translumbar aortography in the diagnosis of
diseases of the abdominal aorta and of the pelvic vessels.
Vest.khir. 82 no.4:122-125 Ap '59. (MIRA 12:6)

1. Iz 1-go khirurgicheskogo otdeleniya (zav. - prof.N.I.Kra-
kovskiy) i rentgenologicheskogo otdeleniya (zav. - prof.P.N.
Mazayev) Instituta khirurgii im. A.V.Vishnevskogo AMN SSSR
(dir. - prof.A.A.Vishnevskiy). Adres avtorov: Moskva, B.
Serpukhovskaya, 27, Institut khirurgii im. Vishnevskogo
AMN SSSR.

(ABDOMEN--BLOOD VESSELS--RADIOGRAPHY)

MAZAYEV, P.M.; VOROPAYEV, M.M.; DONETSKIY, D.A.; PYL'TSOV, I.M.

Application of a pneumatic syringe in aortography. **Eksp.**
khir. 4 no.2:42-47 **Mr-Ap '59.** (MIRA 12:5)

1. Iz Instituta khirurgii imeni A.V.Vishnevskogo (dir. -
deystvitel'nyy chlen **AMN** SSSR prof. A.A.Vishnevskiy) **AMN**
SSSR.

(ANGIOGRAPHY,

aortography, pneumatic syringe (Rus))

(SYRINGES,

pneumatic syringe for aortography (Rus))

USSR/General Problems of Pathology - Tumors. Comparative
Oncology. Tumors of Man

U

Abs Jour : Ref Zhur Biol., No 6, 1959, 27553

Author : Yegorova, Ye.K., Pechatnikova, Ye. A., Pyltsov, I.M.

Inst : -

Title : The State of the Motor-Evacuatory Function of the Small
Intestine After Trans-Pleural Surgeries Due to Carcinoma
of Cardia.

Orig; Pub : Eksperim. khirurgiya, 1958, No 2, 23-26

Abstract : No abstract.

Card 1/1

TITENKOV, D.P., glavnyy vrach; IOSKUTOV, D.P., zamestitel' glavnogo vracha;
VINOGRADOV, S.G., vrach; KIRBITSKAYA, A.V., vrach; KOSSAKOVSKAYA, A.T.,
vrach; PYL'TSOVA, A.M., vrach; SOLONOVICH, A.G., vrach; CHERNAYA, A.V.,
vrach; SAPUNOVA, Ye.A., medsestra.

Overcome shortcomings in hospital construction. Gor.khoz.Mosk. 27 no.11:4-5
N '53. (MLRA 6:11)

1. Moskovskaya 2-ya klinicheskaya infektsionnaya bol'nitsa.
(Moscow--Hospitals)

PYL'TSYN, A., starshiy leytenant

By intersection with azimuth indicators. Voen.vest. 43 no.11:
127 N '63. (MIRA 16:12)

PYNDINA, A.M., kand.med.nauk

Investigating the vascular channel by the capillaroscopic method
in Ménière's disease. Zhur. ush. nos. i gorl. bol. 21 no.4:28-33
Jl-Ag '61. (MIRA 15:1)

1. Iz kafedry bolezney ukha, gorla i nosa (zav. - chlen-korrespondent
AMN SSSR prof. V.F.Undrits) i Leningradskogo meditsinskogo instituta
imeni akademika I.P.Pavlova.
(CAPILLARIES) (MENIERE'S DISEASE)
(MEDICAL INSTRUMENTS AND APPARATUS)

Pyneyev, N. K.

85-58-6-11/43

AUTHOR: Mal'ginov, N.

TITLE: Valuable Handbook (Tsennoye posobiye)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 6, p 5 (USSR)

ABSTRACT: The author reviews three new books. The first, by N. K. Pyneyev entitled "Action of a Plane's Crew" When Compelled to Land in an Uninhabited Area" (Deystviya ekipazha samoleta vymuzhdenno-popavshego v bezlyudnyu mestnost'), is published by Voenizdat, 1957. The second, a pamphlet by D. Zyuzin and A. Markusha, entitled "Tu-104 in the Air" (V nebe Tu-104), published by Molodaya Gvardiya (Young Guard) Moscow, 1957, reviews briefly the development of Soviet aviation; the third new book by M. V. Vodop'yanov, well known polar pilot, is entitled "In the Air and on the Ground" (V vozdukhe i na zemle), Khabarovsk, 1957.

1. Civil aviation--USSR 2. Books--Review

Card 1/1

PYNIN, N., avtolyubitel'

"Manual for amateur automobilists" by G.B. Nagula, V.S.
Kalisskii, A.I. Manson. Reviewed by N. Pynin. Za rul. 17
no. 8:31 Ag '59. (MIRA 12:12)

1. Avtomotoklub g. Kalinin.
(Automobile drivers) (Nagula, G.B.)
(Kalisskii, V.S.) (Manson, A.I.)

I 15385-66 EWT(1)/LWT(m)/EWP(a)/T/EWP(t)/EWP(b) IJP(c) JD/PW/GG

ACC NR: AP6004462

SOURCE CODE: UR/0048/66/030/001/0034/0036

AUTHOR: Kirenskiy, L.V.; Sukhanova, R.V.; Pyn'ko, G.P.

ORG: Institute of Physics, Siberian Section of the Academy of Sciences, SSSR
(Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR)

TITLE: Domain structure of cobalt films grown on NaCl crystals /Transactions of the
Second All-Union Symposium on the Physics of Thin Ferromagnetic Films held at Irkutsk
10 July to 15 July, 1964/

SOURCE: AN SSSR, Izvestiya.Seriya fizicheskaya, v.30, no.1, 1966 34-36

TOPIC TAGS: ferromagnetic film, magnetic thin film, cobalt, magnetic domain structure,
magnetic anisotropy

ABSTRACT: Cobalt films were deposited at 10^{-4} mm Hg on NaCl crystal cleavage surfaces
having temperatures from room temperature to 400°C , and their domain structures were
observed by means of a transmission electron microscope. Conditions for obtaining
single-crystal films are reported in another communication. Films deposited on sub-
strates at 20°C contained hexagonal, cubic and amorphous phases and had a domain
structure that was initially mottled and developed under the influence of an ac field
into a structure of coarse domains with weakly developed substructure. The mottled
domain structure is ascribed to the presence of nonmagnetic inclusions. Films de-
posited on substrates heated to 70 to 150°C did not show a mottled domain structure.

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ACC NR: AP6004462

but the substructure was strongly developed. It was possible to obtain oriented films of β -cobalt crystallites on a 200° substrate. The domain structure of these films showed no substructure. Investigation of the domain structure of the oriented films showed that films of cubic cobalt deposited from molybdenum or tungsten crucibles at 10^{-4} mm Hg have positive magnetic anisotropy, with an anisotropy constant about an order of magnitude less than that of iron. This finding contradicts the results of H.Sato, K.S.Toth, and R.W.Astrue (J.Appl.Phys., 34, 1062 (1963)). Films deposited on substrates heated to 300°C and above had a mottled domain structure which is ascribed to the presence of nonmagnetic inclusions consisting, in this case, of voids. Orig. art. has: 4 figures.

SUB CODE: 20

SUBM DATE: 00

ORIG. REF: 000

OTH REF: 001

Card 1/2

L 09128-67 EWT(m)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AP6032617 SOURCE CODE: UR/0126/66/022/003/0380/0391

AUTHOR: Kirenskiy, L. V.; Pyn'ko, V. G.; Sukhanova, R. V.; Sivkov, N. I.; Pyn'ko, G. P.; Edel'man, I. S.; Komalov, A. S.; Kan, S. V.; Syrova, N. I.; Zvegintsev, A. G.

ORG: Institute of Physics SO AN SSSR (Institut fiziki SO AN SSSR); Krasnovarsk Pedagogical Institute (Krasnoyarskiy pedinstitut)

TITLE: Epitaxial films of iron, nickel and cobalt [report presented at the Conference on Physics of Ferro- and Antiferromagnetism, Sverdlovsk, 5-7 July 1965]

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 3, 1966, 380-391

TOPIC TAGS: magnetic anisotropy, epitaxial growing, hysteresis loop, metal film

ABSTRACT: The authors study the epitaxial growth of iron, nickel and cobalt films thermally vaporized onto ionic crystals split in air and in a vacuum. It is shown that when the substrates are heated in a vacuum of 10^{-4} mm Hg, the surface state is changed with a favorable effect on epitaxy. The phase composition of the film may be controlled by proper selection of the substrate. The fields of anisotropy of the films are measured and the effect which application of a magnetic field during vaporization has on the magnetic anisotropy of the films is studied. The domain structure of the films and its dynamics are analyzed and the results are used as a basis for explaining the shape of hysteresis loops. The coercive force is measured in films of various thickness. It is shown that the coercive force of the films is always much less than the field of anisotropy and is approximately inversely proportional to the saturation magnetization. Orig. art. has: 13 figures, 1 table, 5 formulas.

SUB CODE: 11, 20/ SUBM DATE: 30Jul65/ ORIG REF: 004/ OTH REF: 007

Card 1/1 nat

UDC: 539.216.25.538.221

17409-66 EWT(m)/T/EWP(a)/EWP(t) IJP(c) JD/HW
 ACC NR: AP6004466 SOURCE CODE: UR/0048/66/030/001/0050/0053

AUTHOR: Kirenskiy, L.V. ; Sukhanova, R.V. ; Pyn'ko, V.G. ; Edel'man, I.S. 59
 9

ORG: Physics Institute of the Siberian section of the SSSR Academy of Sciences
(Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR); Krasnoyarsk State
Pedagogical Institute (Krasnoyarsk gosudarstvennyy pedagogicheskiy institut)

TITLE: Single-crystal films of iron-nickel alloys (Transactions of the Second All-Union
Symposium on the Physics of Thin Ferromagnetic Films held at Irkutsk 10 July to
15 July 1964) 11

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.30, no. 1, 1966, 50-53 and insert
 (facing page 45)

TOPIC TAGS: ferromagnetic film, magnetic thin film, permalloy, iron nickel alloy,
 single crystal, magnetic anisotropy, magnetic coercive force, magnetic domain structure,

ABSTRACT: Single-crystal 800 Å films of ²⁷Fe-Ni alloys (5 to 95% Ni) were obtained by
 vacuum evaporation at 10^{-3} to 10^{-4} mm Hg onto the heated (250 to 400C) surface of an
 NaCl crystal, although O.S. Heavens (Proc. Phys. Soc. 78, 33 (1961)) and A. Baltz (J.
 Appl. Phys., 32, 815 (1961)) found that high vacuum (10^{-9} mm Hg) and annealing was neces-
 sary to obtain single-crystal films. No reason for this discrepancy is suggested. The
 alloys containing less than 20% Ni crystallized in a body-centered lattice with a
 lattice constant of 2.828 Å and grew with the (001) face and (100) axis parallel to
 the (001) face and (110) axis, respectively, of the NaCl substrate; the alloys con-
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ACC NR: AP6004466

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taining more than 20% Ni crystallized in a face-centered cubic lattice with a lattice constant of 3.576 Å and grew with the (001) face and (100) axis parallel to the (001) face and (100) axis, respectively, of the substrate. Microtwinning was observed. The single-crystal films had two mutually perpendicular easy magnetization axes, this was not observed by S. Chikazumi (J. Appl. Phys., 32, 815 (1961)). The anisotropy constant was positive for films containing up to 79.4% Ni and was negative for films containing 82% Ni or more. The coercive force depended strongly on the temperature of the substrate during deposition; the coercive force of films of an undisclosed composition increased from 9 to 80 Oe as the temperature of the substrate during deposition was increased from 250 to 350C. Films deposited at temperatures below 250C were polycrystalline. The single-crystal films either consisted of a single domain with substructure, or were mottled. After demagnetization in a decreasing ac field parallel to the hard axis the films had 90° domain walls in the direction of the hard axis and 180° walls in the direction of the easy axis. When a mottled film was demagnetized along the easy axis, the spots became aligned along substructure lines; when the same film was demagnetized along the hard axis there appeared domain walls consisting of separate points. The presence of substructure makes it possible to determine the directions of the easy axes. The easy axis directions determined from the substructure agreed with those determined from the shapes of the hysteresis loops. Orig. art. has: 5 figures. [15]

SUB CODE: 20/ SUBM DATE: none/ ATD PRESS: 4206

Card 2/3 net

ACC ~~1-423-00~~ EWP(1)/EWT(m)/T/EWP(t)/EWP(b) LJP(c) JD/GG
AP6004478

SOURCE CODE: UR/0048/66/030/001/0093/0094

AUTHOR: Kirenskiy, L.V.; Pyn'ko, V.G.

ORG: Institute of Physics, Siberian Section of the Academy of Sciences, SSSR
(Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR)

TITLE: Concerning the coercive force of films with biaxial magnetic anisotropy
[Transactions of the Second All-Union Symposium on the Physics of Thin Ferromagnetic
Films held at Irkutsk 10 July to 15 July, 1964]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.30, no. 1, 1966, 93-94, and insert
facing p. 94 and 95

TOPIC TAGS: ferromagnetic film, magnetic thin film, magnetic domain structure,
magnetic anisotropy, magnetic coercive force,

ABSTRACT: The coercive forces in directions forming angles of 0, 25, and 45° with an
easy axis of a film with strong biaxial magnetic anisotropy are calculated on the basis
of a model according to which switching takes place by processes of formation and dis-
placement of 90° domain walls. The model adopted for switching at 25° to an easy axis
involves successive formation and displacement of two sets of 90° walls and leads to
two values of the coercive force. The presence of two values of the coercive force is
revealed by steps in the hysteresis loops of epitaxial iron films. The calculated

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ACC NR: AP6004478

coercive forces are compared with experimental values derived from hysteresis loops. The calculated coercive forces were normalized to agree with the experimental value for 0° inclination to an easy axis, and good agreement between theory and experiment is shown for the remaining three values (two at 25° and one at 45°). It is concluded that the coercive force of films with strong biaxial magnetic anisotropy is due mainly to domain wall displacement and not to nucleation. Orig. art. has: 5 formulas, 2 figures, and 1 table.

SUB CODE: 20

SUBM DATE: 00

ORIG. REF: 002

OTH REF: 001

Card 2/2

ACCESSION NR: AP4018386

S/0120/64/000/001/0178/0179

AUTHOR: Py*n'ko, V. G.

TITLE: Observation of the domain structure of thin ferromagnetic films by an EM3 electron microscope

SOURCE: Pribery* i tekhnika eksperimenta, no. 1, 1964, 178-179

TOPIC TAGS: ferromagnetic film, domain structure, ferromagnetic film domain structure, electron microscope, EM3 electron microscope

ABSTRACT: A Soviet-make EM3 electron microscope was modified for the purpose of observing the domain structure of iron-nickel and cobalt thin films prepared by powder spraying. With the microscope objective turned off, enlargements up to 400 were possible with only a low resolution. With the objective lens on, satisfactory visual observation was obtained with enlargements up to 1,000 and a much better resolution. "The author wishes to thank

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ACCESSION NR: AP4018386

N. Yu. Yendrzheyevskiy for his technical help in carrying out the above project."
Orig. art. has: 3 figures.

ASSOCIATION: Institut fiziki SO AN SSSR (Institute of Physics, SO AN SSSR)

SUBMITTED: 15Jan63

DATE ACQ: 18Mar64

ENCL: 00

SUB CODE: PH

NO REF SOV: 000

OTHER: 019

Card 2/2

L 15398-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACC NR: AP5027223

SOURCE CODE: UR/0020/65/164/006/1267/1268

AUTHOR: Kirenskiy, L. V. (Corresponding member AN SSSR); Pyn'ko, V. G.

ORG: Institute of Physics, Siberian Section of the Academy of Sciences SSSR (Institute fiziki Sibirskogo otdeleniya Akademii nauk SSSR)

TITLE: Anisotropy of epitaxial cobalt films

SOURCE: AN SSSR. Doklady, v. 164, no. 6, 1965, 1267-1268, and bottom half of insert facing page 1260

TOPIC TAGS: cobalt, magnetic thin film, epitaxial growth

ABSTRACT: Fully oriented cobalt films may be obtained at 10^{-4} mm Hg by thermal spray-coating of freshly cleaved NaCl crystals heated to 200C. The present investigation of the domain structure and hysteresis loops of such films shows that they have an unstable axis of easy magnetization. Theoretical consideration shows that the presence of α -phase crystallites within the epitaxial cobalt film seems to decrease the negative anisotropy, and if such crystallites are present in sufficient quantities, they could create a "positive" total anisotropy, such as in films deposited on NaCl crystals. No such α -phase crystallites could be observed on cobalt films deposited on LiF crystals at 250C the anisotropy of which is always negative. This is evidence in favor of the hypothesis that the α -crystallites with an increased oxygen content are responsible for the appearance of "positive" anisotropy. This is in agreement with the results

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UDC: 538.245

E 15398-66

ACC NR: AP5027223

by R. D. Heidenreich et al. (J. Appl. Phys., 30, 995, 1959). Orig. art. has: 2 formulas and 4 figures.

SUB CODE: 11 / SUBM DATE: 24Jun65 / OTH REF: 003

OC
Card 2/2

L 15374-66 EWP(m)/T/EWP(t)/EWP(b) LJP(c) JD

ACC NR: AP6004465

SOURCE CODE: UR/0048/66/030/001/0046/0049

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B

AUTHOR: Kirenskiy, L.V.; Pyn'ko, V.G.; Antipin, I.P.

ORG: Institute of Physics, Siberian Section of the Academy of Sciences, SSSR
(Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR); Krasnoyarsk State
Pedagogical Institute (Krasnoyarskiy gosucaratvennyy pedagogicheskiy institut)

TITLE: Domain structure of epitaxial iron films ^{6,4,55} Transactions of the Second All-Union
Symposium on the Physics of Thin Ferromagnetic Films held at Irkutsk 10 July to
15 July 1964/

SOURCE: AN SSSR. Izvestiya.Seriya fizicheskaya, v.30, no. 1, 1966, 46-49

TOPIC TAGS: ferromagnetic film, magnetic thin film, iron, epitaxial growth, sodium
chloride, magnetic domain structure

ABSTRACT: The domain structure of 600 to 1000 Å epitaxial iron films vacuum deposited
on NaCl substrates was investigated by electron microscopy and by the powder pattern
technique. The growth and crystal structure of the films are discussed elsewhere by
V.G.Pyn'ko and R.V.Sukhanova (Izv. AN SSSR, Ser. fiz., 30, 43 (1966)/ see Abstract
AP6004464/). The films were transferred in water from the NaCl substrate to glass
for examination by the powder pattern technique or to 50 x 50 μ grids for examination
with the electron microscope. The films could be roughly classified into three types:
1) fully oriented films with the (001) plane in the plane of the film; 2) films with

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ACC NR: AP6004465

crystallites oriented in two or three different ways with the (001) face in the film parallel to the (001) face of the substrate and the [100] axis in the film parallel to the [110] or the [100] axis in the substrate, or with the (110) face in the film parallel to the (100) face in the substrate and the [100] axis in the film parallel to the [100] axis in the substrate; and 3) films containing a large number of randomly oriented crystallites. It was very difficult to obtain a checkerboard domain structure in type 1) films; under the influence of an ac field there usually appeared large rectangles or squares of different sizes. A regular checkerboard structure was obtained in type 2) and 3) films, but the "squares" were rectangular. These checkerboard structures developed in two stages, the domain walls perpendicular to the ac field forming first. Type 1) films initially had a fine domain structure with 180° and modified 90° walls; type 2) films regularly had an initial mottled domain structure; the initial domain structure of type 3) films was like that of type 1) or type 2) films, depending on the substrate temperature and deposition rate. After demagnetization the domains of type 3) films always showed substructure and those of type 1) films did not. The 180° domain walls were continuous except those in type 3) films containing a large number of randomly oriented crystallites. It is concluded that substructure in epitaxial films is associated with anisotropy dispersion, and that 180° domain walls in epitaxial iron films always have an internal structure which, however, may not appear in the electron microscope image. It was not possible to observe the domain structure of the 600 Å films. Orig. art. has: 4 figures.

SUB CODE: 20

SUBM DATE: 00

ORIG. REF: 002

OTH REF: 008

Card 2/2

KIRENCHIK, I.V.; FYN'KO, V.G.; SIBELANOVA, E.V.; FYN'KO, G.P.

Domain structure of cobalt films grown on NaCl crystals.

Izv. AN SSSR. Ser.fiz. 30 no.1:34-36 Ja '66.

(MIRA 19:1)

1. Institut fiziki Sibirskogo otdeleniya AN SSSR.

KIRENSKIY, L.V.; SUKHANOVA, R.V.; FYN'KO, V.G.; EDEL'MAN, I.S.

Single-crystal films of iron-nickel alloys. Izv. AN SSSR. Ser.fiz.
30 no.1:50-53 Ja '66. (MIRA 19:1)

1. Institut fiziki Sibirskogo otdeleniya AN SSSR i Krasnoyarskiy
gosudarstvennyy pedagogicheskiy institut.

ACC NR: AP6004477

AP6004477

SOURCE CODE: UR/0048/66/030/001/0091/0092

AUTHOR: Kirenskiy, L.V.; Pyn'ko, V.G.; Sivkov, N.I.

ORG: Institute of Physics, Siberian Section of the Academy of Sciences, SSSR
(Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR); Krasnoyarsk State Pedagogical Institute (Krasnoyarskiy gosudarstvennyy pedagogicheskiy institut)

TITLE: Domain structure and switching of single-crystal nickel films (Transactions of the Second All-Union Symposium on the Physics of Thin Ferromagnetic Films held at Irkutsk 10 July to 15 July, 1964)

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 1, 1966, 91-92

TOPIC TAGS: ferromagnetic film, magnetic thin film, nickel, magnetization, single crystal, magnetic domain structure, epitaxial growing, sodium chloride

ABSTRACT: Nickel films from 200 to 1200 Å thick were deposited on NaCl substrates at 120°C, the minimum temperature for epitaxy, and their domain structures and dynamics were investigated. The (001) planes and [100] axes of the epitaxial films were parallel to the (001) planes and [100] axes, respectively, of the substrates. The easy axis in the plane of the film was in or close to the [110] direction. Epitaxial nickel films deposited on NaCl at higher temperatures usually have a fine mottled domain structure and switch by nonuniform rotation. The domain structure of the "cold" films and their switching behavior varied with the thickness. The domains of

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ACC NR: AP6004477

the films thicker than 500 Å exhibited substructure and the walls evinced a complex internal structure. Domain formation took place over the full area of the film and switching was accomplished by domain destruction without significant wall movement. These films were characterized by inclined hysteresis loops. This behavior is ascribed to inclination of the easy axis to the plane of the film, owing to the absence in that plane of a [111] axis. The easy axis of a film from 300 to 500 Å thick lay in the plane of the film in the [110] direction. These films were rather uniform and amplitude dispersion of the anisotropy was not detected. The domains were large and domain wall movement played a significant role in the switching process. Switching of films less than 300 Å thick began with the appearance of substructure owing to the nonuniform rotation of the magnetization. The behavior of these films is ascribed to amplitude dispersion of the anisotropy due to nonuniform thickness of the film. Orig. art. has: 4 figures.

SUB CODE: 20

SUBM DATE: 00

ORIG. REF: 000

OTH REF: 000

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L 10414-65 EWT(m)/EWP(b) IJP(c)/ASD(a)-5/ASD(m)-3/ESD(dp)/SSD/AFWL/ESD(t)/
 RAEM(t) JD
 ACCESSION NR: AP4046045 S/0070/64/009/005/0681/0685
 AUTHOR: Kirenskiy, L. V.; Py*n'ko, V. G.; Edel'man, I. S.
 TITLE: Reversal of magnetization of thin single-crystal iron films
 SOURCE: Kristallografiya, v. 9, no. 5, 1964, 681-685
 TOPIC TAGS: iron, thin film, single crystal, magnetic domain structure, hysteresis, demagnetization, magnetization reversal
 ABSTRACT: Iron films in the form of mosaic single crystals were produced by sputtering iron in a vacuum of 2×10^{-5} mm Hg from a

L 10411-65

ACCESSION NR: AP4046045

the Faraday-magneto-optical effect (C. A. Fowler and E. M. Fryer, J. Appl. Phys. 24, 104, 1956). The magnetization reversal was carried out at various angles between the magnetization-reversal field and the easy magnetization direction [100]. Demagnetization by a gradually decreasing alternating field causes the domain structure to break up into a series of plane-parallel domains elongated in one of the directions of the easy magnetization. Demagnetization in the difficult magnetization direction [110] results in a system of domains with 90° boundaries (a checkerboard domain structure). Magnetization reversal at intermediate angles results in various domain structures, depending on

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ACCESSION NR: AP4046045

ASSOCIATION: Institut fiziki SO AN SSSR (Institute of Physics, SO
AN SSSR)

SUBMITTED: 18Dec63

ATD PRESS: 3116

ENCL: 00

SUB CODE: 88, 10

NO REF SOV: 001

OTHER: 004

L 25447-66 EWT(m)/T/EWP(w)/EWP(t) JD/HW/JG

ACC NR: AP6009700

SOURCE CODE: UR/0181/66/008/003/0971/0972

AUTHOR: Pyn'ko, V. G.

ORG: Institute of Physics, SO AN SSSR, Krasnoyarsk (Institut fiziki SO AN SSSR)

TITLE: Epitaxial growth of films of silver, copper, and nickel on NaCl crystals cleaved in vacuum

SOURCE: Fizika tverdogo tela, v. 8, no. 3, 1966, 971-972

TOPIC TAGS: epitaxial growing, metal film, silver, copper, nickel, ultrahigh vacuum

ABSTRACT: To explain the causes of experimentally observed differences in the epitaxial growth of metal films in high and ultrahigh vacuum, the author sets up an experiment wherein the substrate crystals for the films were cleaved in a vacuum chamber (Fig. 1). The apparatus made it also possible to vary the time τ between the instant of cleavage of the crystal and the start of deposition of the film. Electron diffraction patterns have shown that an increase in τ leads

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ACC NR: AP6009700

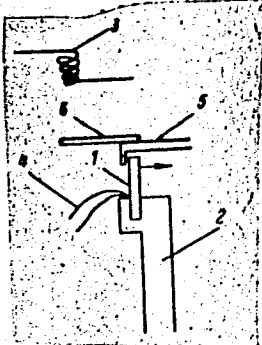


Fig. 1. Diagram of attachment for cleaving crystals in vacuum. 1 -- Substrate crystal, 2 -- substrate heater, 3 -- tungsten evaporator, 4 -- thermocouple, 5 -- hook, 6 -- shutter

to the same result as a reduction in the vacuum. Nickel films were obtained with complete (001) orientation both for $\tau \approx 0$ and $\tau > 0$, but at higher substrate temperatures than those indicated in previously published investigations (S. Ino et al. J. Phys. Soc. Japan, v. 19, 881, 1964). The minimum value of τ necessary to change the type of epitaxy of silver and copper turned out to occur at an in-

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